![ADTRAN logo]
PRACTICES

MODEL U-RPM
D4-U-RPM
U-REPEATER POWERING MODULE
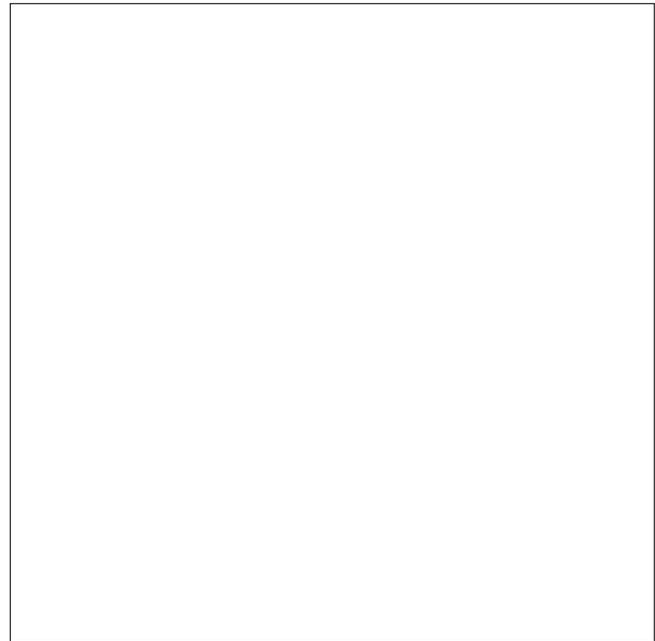# INSTALLATION/MAINTENANCE

Contents

1.0   GENERAL

1.01   This section provides installation and maintenance information for the ADTRAN U-Repeater Powering Module (U-RPM), Part Number: 1100022L1. **Figure 1** shows the front of the unit. **Figure 2** represents a generic module application. **Figure 3** shows the connector pin assignments for the U-RPM. The unit's part number and basic features are:

Equipment	Part Number	Features
U-Repeater Powering Module (U-RPM)	1100022L1	Repeater Powering for ADTRAN ISDN mid-point loop repeater; Loop resistance fault indicator; Class A2 or Class A3 operation.

1.02   This practice has been reissued to reflect the addition of a field selectable powering option in **Paragraph 2.04** and **Figure 4** and the latest CLEI designation. Issue 3 adds a new Sales telephone number.
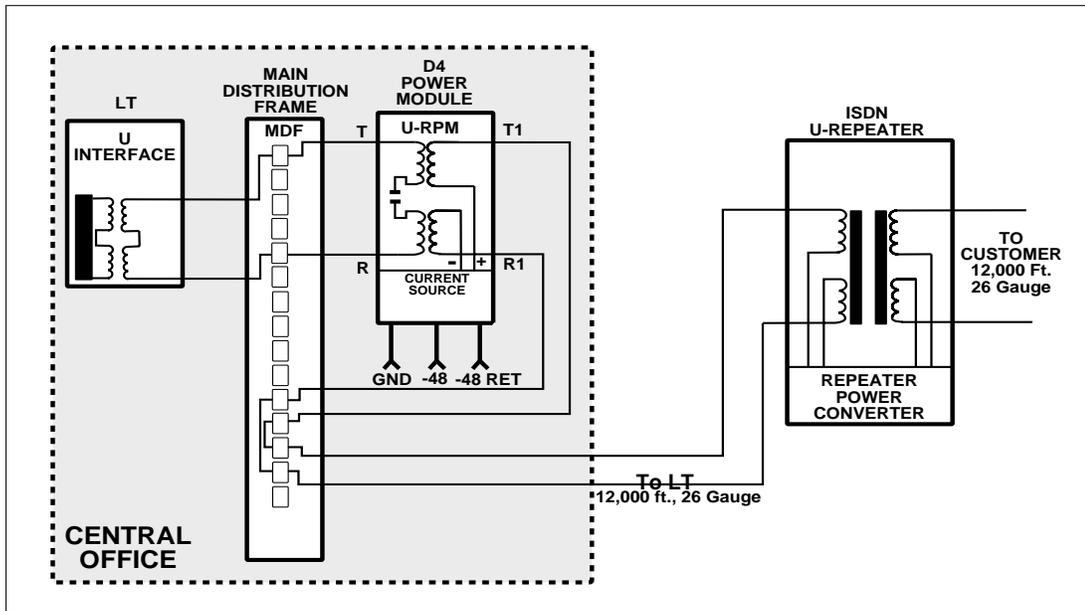

FIGURE 1. ADTRAN D4 U-RPM

1.03   The U-RPM is a channel plug-in used in the ADTRAN GPC-1 or AD4-24 Shelves or the WECO® D4 channel bank, to provide sealing current power for the ADTRAN ISDN mid-point loop repeater.

1.04   The U-RPM provides three functions for the ADTRAN ISDN mid-point loop repeater. These functions are:

1.   The D4-U-RPM receives -48 VDC power from the facility power source and sends constant 85 mA of sealing current down the loop to power the U-Repeater.

2.   A passive customer data flow is allowed through the D4-U-RPM.

3.   The D4-U-RPM monitors the line for excessive resistance or open conditions.

FIGURE 2. U-Repeater Powering Module Application

2.0 INSTALLATION

2.01 After unpacking the unit, immediately inspect it for possible shipping damage. If damage is discovered, file a claim immediately with the carrier, and then contact ADTRAN customer service, see **Paragraph 5.03**.

2.02 The U-RPM plugs directly into any of the 12 channel positions of the GPC-1 or the 24 channel positions of the AD4-24 or WECO D4 Channel Bank.

> *NOTE: When installed in D4-type compatible channel banks, the unit dissipates approximately 3 W.*

2.03 The U-RPM contains installed option jumpers for Class A2 ($\pm$ 80 V) or may be optioned for Class A3 (0 V to -140 V) operation, using the 22 AWG jumpers provided with the unit, ADTRAN Part Number: 3336.008.
    See **Figure 4** for option locations and **Table A** for the option settings. The **Loop Resistance Fault** indicator illuminates when loop resistance exceeds 1000 Ω or if the loop is open to the Repeater.

2.04 The U-RPM contains a factory replaceable (3/4 A) Slo Blo fuse on the -48 V line to isolate the bank in the event of unit failure.
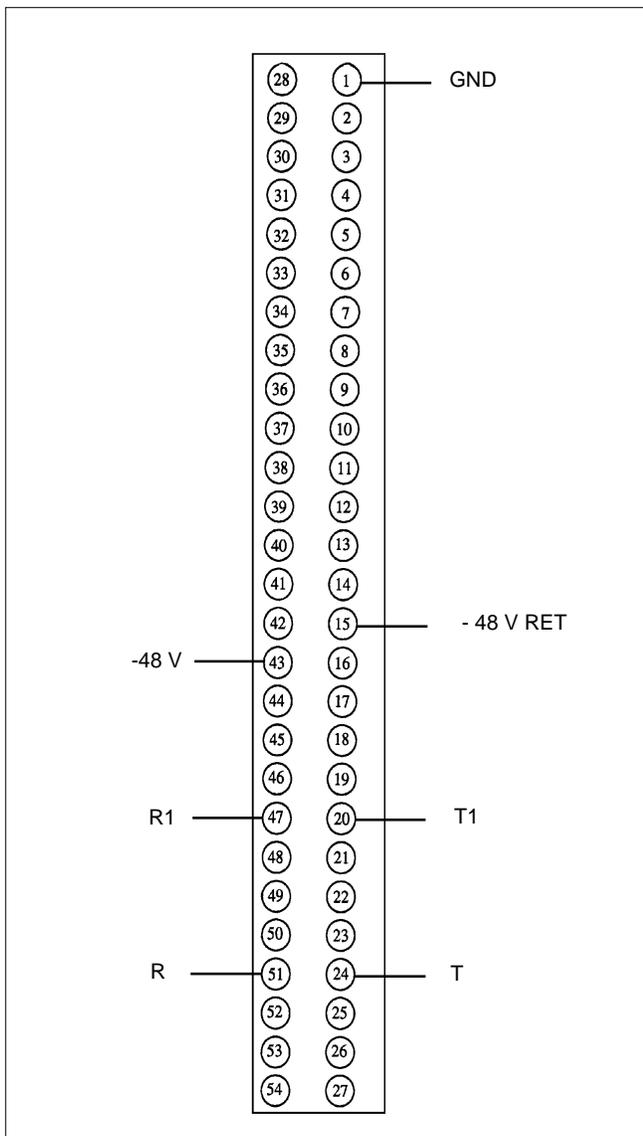
2.05 After installing the U-Repeater System, see ADTRAN's *U-Repeater Installation/Maintenance Practice, Section Number, 61150.017-5*. Grasp the U-RPM by its faceplate and insert it into a channel position. Push the U-RPM into the backplane connector until firmly seated.

3.0 CONNECTIONS

3.01 **Figure 3** shows the connector pin assignments of the U-RPM. All connections to the unit are made via the GPC or D4 compatible backplane. No additional backplane wiring is necessary for normal

Class of Operation	Voltages Used	Jumper(s) Installed
Class A2	$\pm$ 80 V	J1 only
Class A3	0 V to -140 V	J2 & J3 only

TABLE A. U-RPM Option Selections

operation of the U-RPM.

4.0 MAINTENANCE

4.01 The U-RPM requires no routine maintenance to operate. ADTRAN recommends that units not be repaired in the field. Repair services may be obtained by returning the defective unit to ADTRAN.

5.0 WARRANTY AND CUSTOMER SERVICE

5.01 ADTRAN will replace or repair this product within five (5) years from the date of shipment if it does not meet its published specifications or fails while in service.

For detailed warranty and repair and return information, refer to our ADTRAN *Equipment Warranty and Repair and Return Policy and Procedure*.

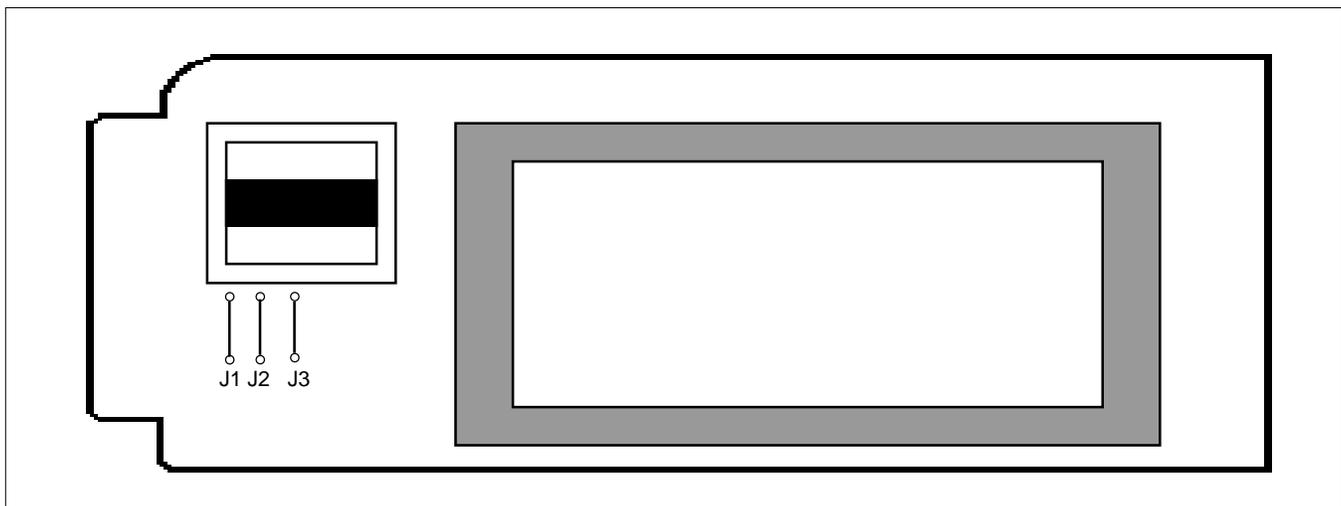**5.02** A Return Material Authorization (RMA) is required prior to returning equipment to ADTRAN.

5.03 For Sales or General Information, contact:
ADTRAN Customer Service - Sales
(205) 722-8779

For Technical Support, contact:
ADTRAN Customer Service - Technical Support
(800) 726-8663

For RMA requests, contact:
ADTRAN Customer Service - Repair Department
(205) 722-8722

Repair and Return Address:

ADTRAN, INC.
Customer Service - Repair Department
4955 Corporate Drive
Huntsville, AL 35805

FIGURE 3. Connector Pin Assignments

FIGURE 4. U-Repeater Powering Module Option Locations